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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/394,345	09/13/99	TAKAYAMA I	0756-2028

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
2673	19

DATE MAILED: 03/14/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/394,345	Takayama et al.
Examiner	**Group Art Unit**
Ricardo Osorio	2673

☒ Responsive to communication(s) filed on *Jan 17, 2001*

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) *11-32* is/are pending in the applicat

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *11-32* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). *10*

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. **Claims 11-32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lou et al. (4,042,854) in view of Utsugi et al. (5,670,792) and Fischer (3,885,196).

Under claims 11, 13, 14, 17, 21 and 24 and 28-32, Lou teaches of an active matrix luminescent display device comprising a substrate (see col. 1, line 68), a plurality of light emissive elements arranged in a matrix over said substrate, first TFTs (T1, Fig 3) over said substrate, second TFTs (T2, Fig. 3) over said substrate and connected to the light emissive elements (EL, Fig. 3), respectively, wherein one of said first TFTs is connected to the gate of one of said second TFTs, a first signal line (Fig. 1, element number 20) and a second signal line (column bus line) intersecting each other (Fig. 3, element number 16), the first signal line (20) is connected to a gate of the first TFT (T1, Fig. 3) and the second signal line (column bus line 16) is connected to the source or drain of the first TFT (T1), in the second TFT the other one of the source or drain of the first TFT is connected to a gate of the second TFT (see Fig. 3), an electroluminescent element (EL) electrically connected to the source or drain of the second TFT (see Fig. 3), a power supply line electrically connected to the other one of the source or drain of the second TFT (see Fig. 3), and a capacitor (CS, in Fig. 3) formed between the gate of the second TFT and the source or drain of the second TFT to which said power supply line (18) is connected (see Fig. 3).

Lou teaches of an electroluminescent display device, but fails to teach of that said device is an organic electroluminescent device.

Utsugi teaches of an active matrix organic el device having first and second transistors (see Figs. 1-3, and col. 1, lines 15-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use organic electroluminescent elements, as taught by Utsugi, in the device of Lou because, as is well known in the art, an improved luminance performance can be obtained (see col. 1, lines 35-42).

The device of Lou, as anticipated by Utsugi, fails to teach of a circuit for driving said first TFTs comprising third TFTs which are column-selecting transistors.

Fisher teaches a circuit of third TFTs (elements Q10-Q18, Q20-Q26, or both groups of TFTs, in Figs. 1 and 2), for driving first TFTs (Figs. 1-2, elements Q41-Q46), which are column-selecting transistors (see Figs. 1-2, col. 1, lines 18-32, and col. 3, lines 31-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have third TFTs, as taught by Fisher, in the combined device of Lou and Utsugi because it alleviates the size restriction of EL panels (see col. 1, lines 18-25), and because transistors such as TFTs, MOSs, JFETs, etc, are well known in the art of semiconductors to be used as switches.

Under claims 15, 16, 18, 19,22, 23, 25 and 26, Luo teaches a video signal applied to the gate of the second TFT through said second signal line (16) and said first TFT (T1) and said power

supply line extends parallel with said second signal line (see Figs. 3 and 4 and col. 2, lines 17-30).

Under claims 12, 20 and 27, the device of Luo, as anticipated by Utsugi, fails to teach of an electroluminescent display device comprising a first shift register and a second shift register electrically connected to first thin film transistors.

Fisher teaches of a first SR and a second SR electrically connected to a plurality of first TFTs (see Figs. 1-2, col. 1, lines 27-31 and 42-44, and col .3, lines 29-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the shift registers, as taught by Fisher, in the combined device of Luo and Utsugi because shift registers are commonly known to be used in the art of electroluminescent display devices to convert parallel data to serial data.

Response to Arguments

2. Applicant's arguments with respect to claims 11, 14, 17, 21 and 24 have been considered but are moot in view of the new ground(s) of rejection.

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ricardo Osorio whose telephone number is (703) 305-2248. The examiner can normally be reached on Monday-Thursday from 7:30 AM to 6:00 PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700

4. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or: (703) 308-6606 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Ricardo Osorio

March 14, 2001

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SUPERVISORY PATENT EXAMINER
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